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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,617	01/25/2001	Bret S. Clark	3174-000001/CPA	5733

7590 03/12/2002

Harness, Dickey & Pierce, P.L.C.
P.O. Box 828
Bloomfield Hills, MI 48303

EXAMINER

SMITH, TYRONE W

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 03/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

NP

Office Action Summary	Application No. 09/768,617	Applicant(s) CLARK ET AL	
	Examiner Tyrone W Smith	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The drawings are objected because Figure 1 shows an incomplete control system, and Figure 3 should be labeled "Prior Art" or "Conventional Art" as required by 37 CFR 1.83(a).

Correction is required.

2. Applicant is required to submit a proposed drawing correction in reply to this Office Action. However, formal correction of the noted defect can be deferred until the application is allowed. Rule 37 CFR 1.123.

3. The specification is objected to because of the following informalities:

On page 7, control module 46 should be "46a-46c" for better cohesiveness with the drawings.

Appropriate correction is required.

4. The specification is objected to under 37 CFR 1.71 because the description of Figure 1 method and steps are incomplete. The method and steps shown in Figure 1 are not clearly described in the specification. Now new matter should be added or introduced into the specification. Refer to 37 CFR 1.71 (a)-(c) in the MPEP.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-16 rejected under 35 U.S.C. 102(b) as being anticipated by Murty (4544868). Murty discloses a three-phase brushless DC motor controller, which includes a source a direct voltage (Figure 1 #16), an inverter (Figure 1 #18) having a switching circuit for regulating the DC bus current to a fixed level. Figures 4(A-C) and 5(A-C) shows the fix level (I_{ref}) and current sharing/share the bus current at commutation (abstract, column 5 lines 31-68 and column 6 lines 1-66) comparable to the claimed invention.

Regarding Claims 2-6. Murty discloses shows that the winding energization is controlled by a read only memory (ROM) or programmable logic array (PLA) (Figure 1 #44) which directs the driver circuit (Figure 1 #46) connected to the data lines to supply drive current to the various bridge transistors (column 2 lines 57-68 and column 3 lines 1-7).

Regarding Claims 5, 6, 10, 15 and 16. Murty discloses a shunt resistor (Figure 1 #96) connected in series between the battery and the inverter and the line connects the inverter side of the shunt resistor as an input to the PWM circuit. People skill in the art understand that the shunt resistor or device connected in parallel across other devices or apparatus and diverting some of the current from it. Appreciable voltage exists across the shunted device or apparatus and an appreciable current may exist in it.

Regarding Claims 13 and 14. Refer to the previous rejection regarding DC bus current regulated at a fixed level.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tyrone W Smith whose telephone number is 703-306-5987. The examiner can normally be reached on weekdays from 8:30am to 5:00pm.


Art Unit: 2837

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi, can be reached on (703) 308-3370. The fax phone number for the organization where this application or proceeding is assigned is 703-308-3431.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Tyrone Smith

Art Unit 2837


ROBERT E. NAPPI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800